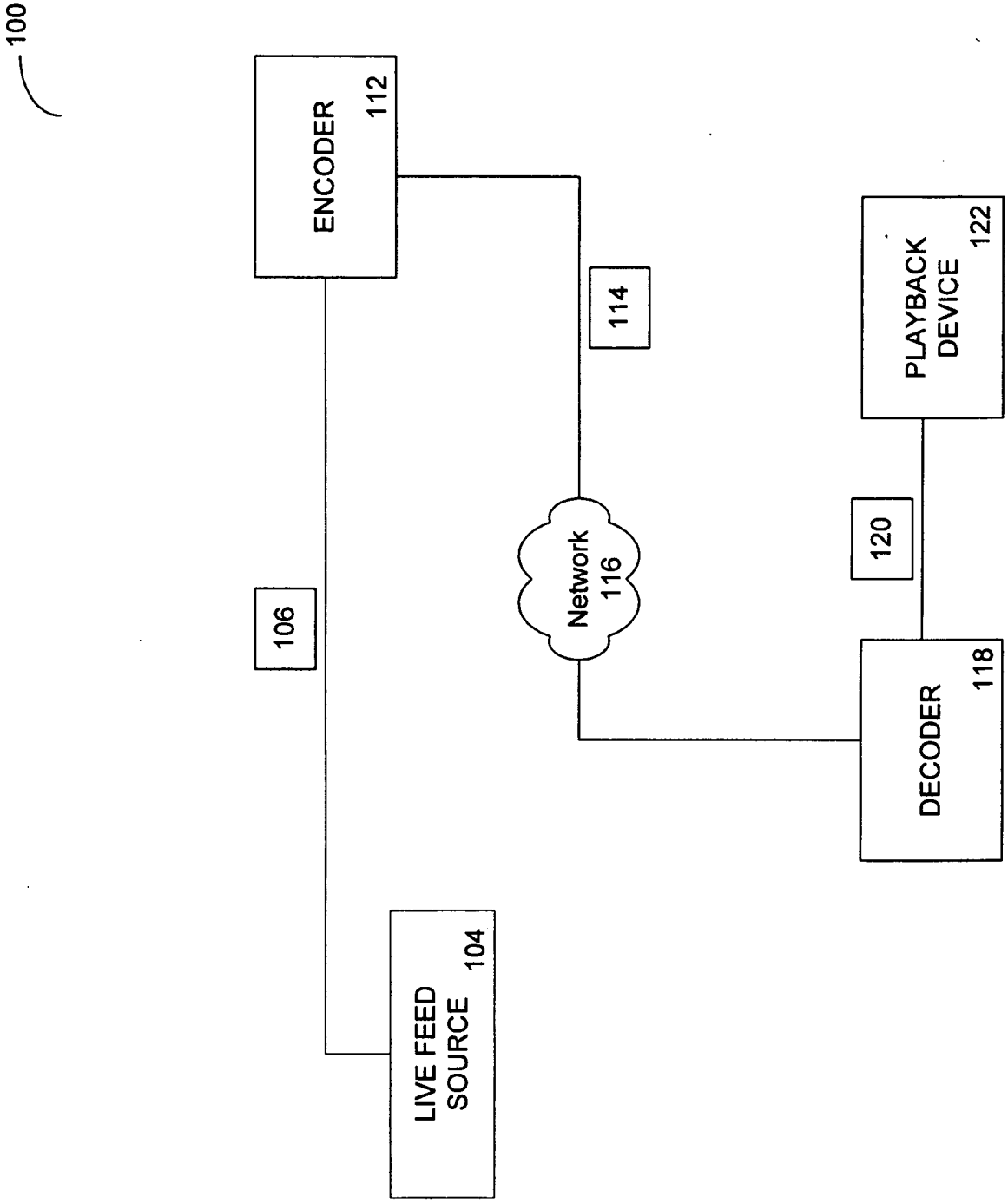
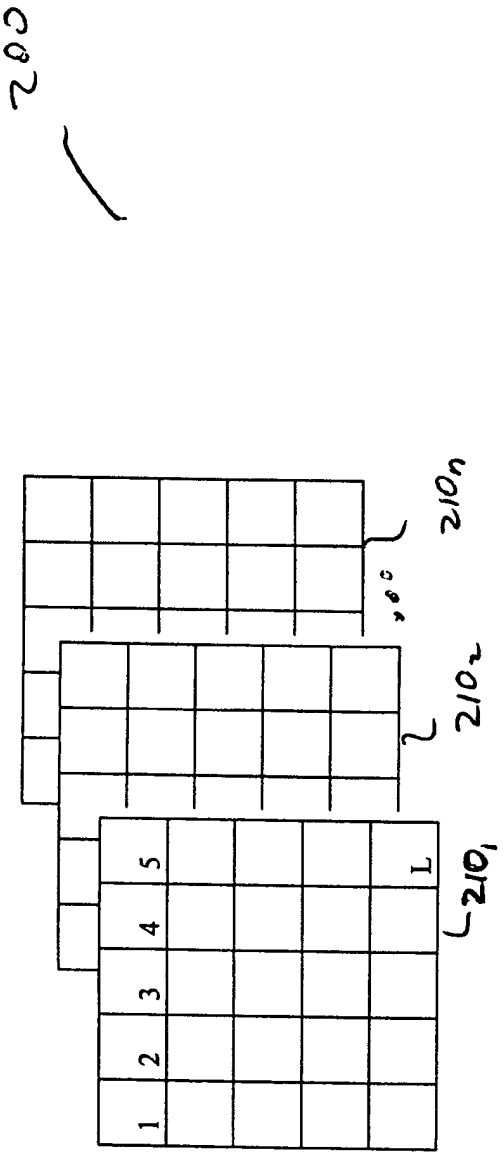

100
ENCODER
112
114
PLAYBACK DEVICE
122
Network
116
120
106
DECODER
118
LIVE FEED SOURCE
104

FIG. 1



Pixel Number 222₁	Red Value 223₁	Green Value 224₁	Blue Value 225₁	Luminance Value 226₁	Chrominance Value 227₁
1	10000	2000	500	900	500
2	9000	1500	740	640	360
3	3000	8000	460	490	510
4	2500	8400	510	520	530
5	600	10000	740	610	400
⋮					
Last Pixel (L)					

231 232 233 234 235 236

Pixel Number 222₁ | Red Value 223₁ | Green Value 224₁ | Blue Value 225₁ | Luminance Value 226₁ | Chrominance Value 227₁

Pixel Number 222ₙ | Red Value 223ₙ | Green Value 224ₙ | Blue Value 225ₙ | Luminance Value 226ₙ | Chrominance Value 227ₙ

220₁ 220₂ 220ₙ

Fig. 2

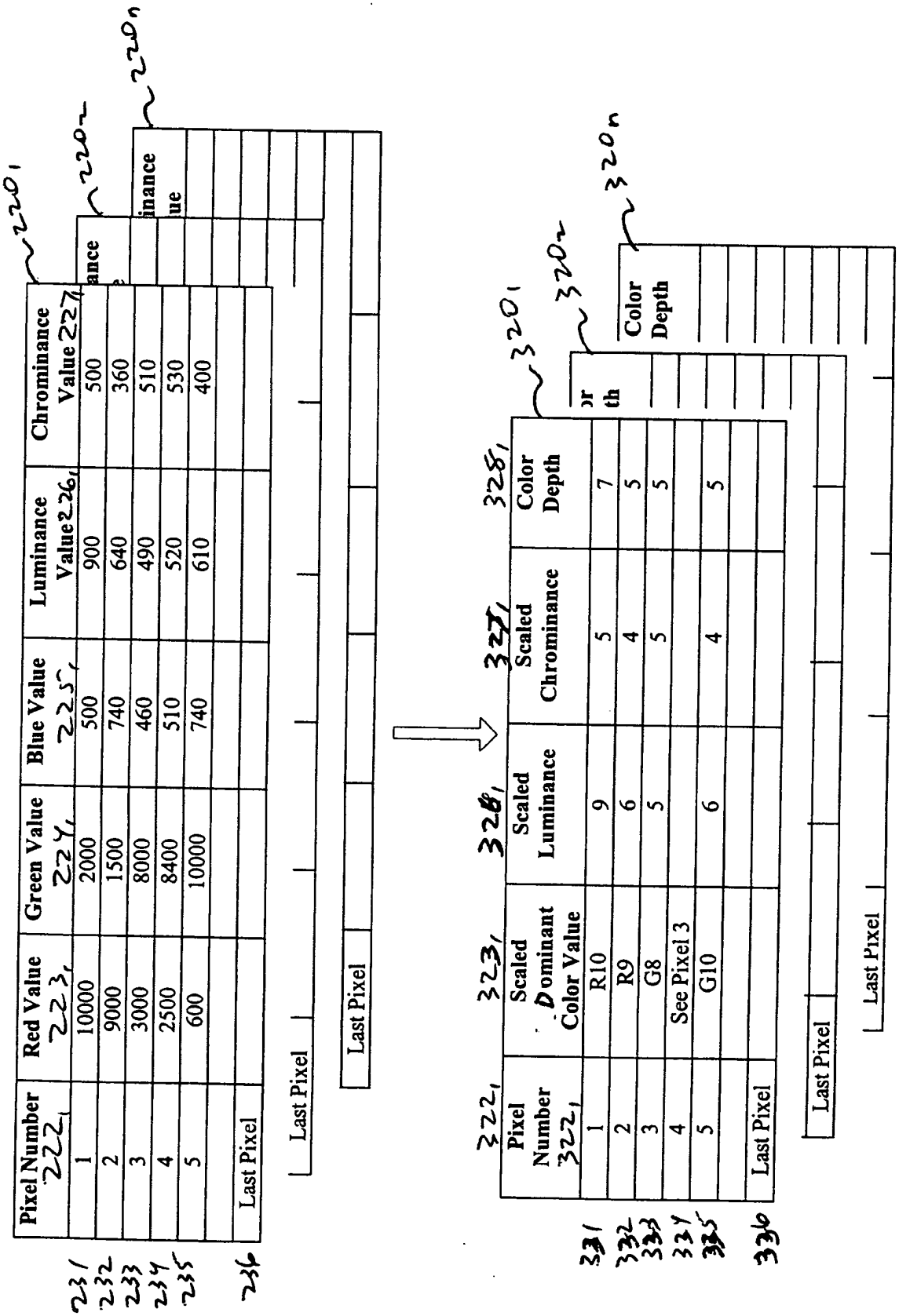

Pixel Number 222
Red Value 223
Green Value 224
Blue Value 225
Luminance Value 226
Chrominance Value 227
2201
220
220n
Last Pixel
Scaled Dominant Color Value 323
Scaled Luminance 326
Scaled Chrominance 327
Color Depth 328
320
320n
231
232
233
234
235
236
331
332
333
334
335
336

Fig. 3A

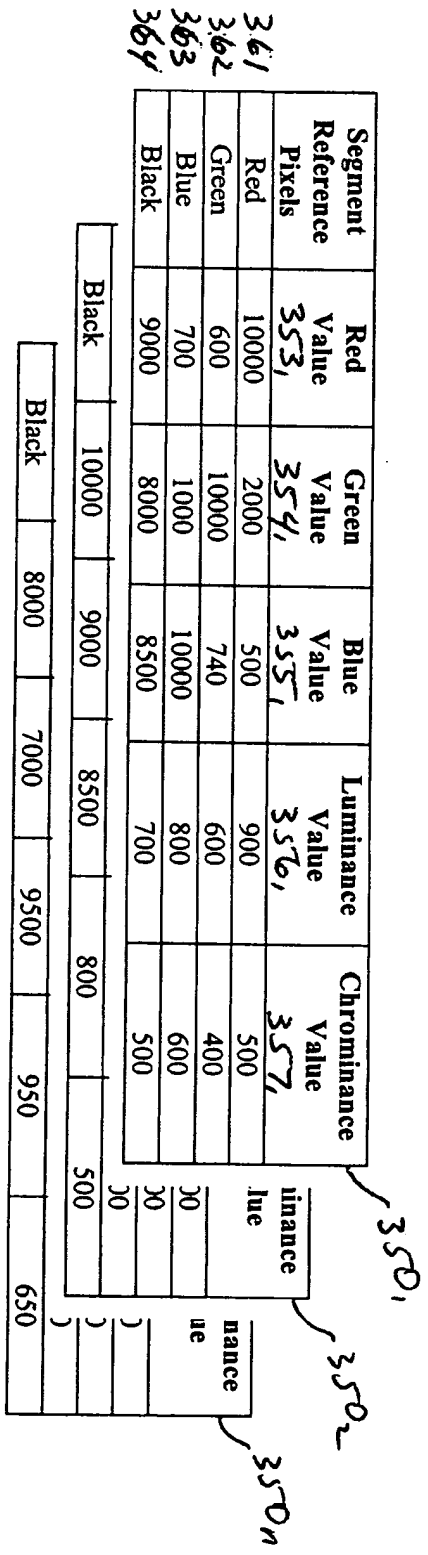
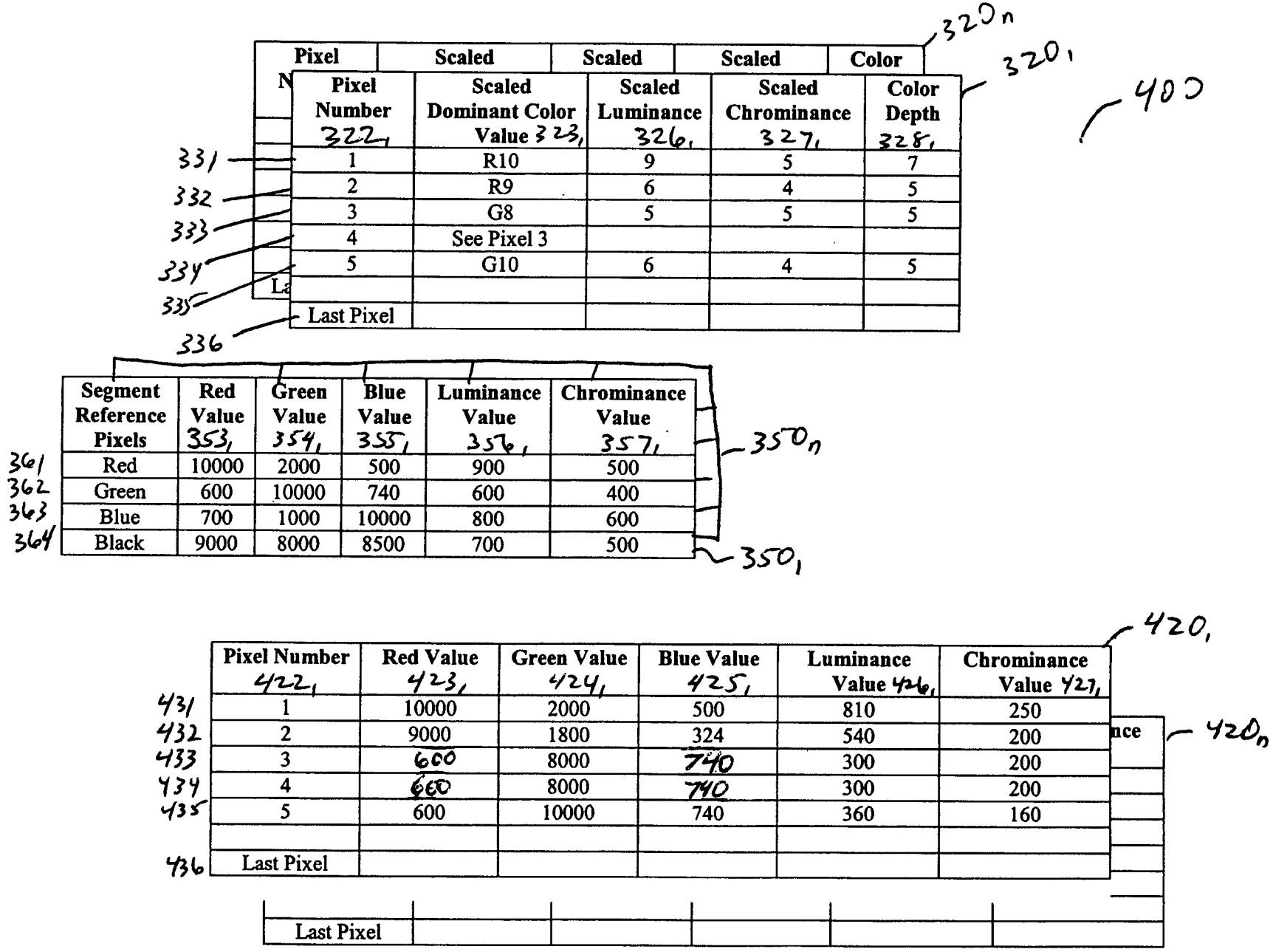

361
362
363
364
Segment Reference
Pixels
Red Value
Green Value
Blue Value
Luminance Value
Chrominance Value
Red
Green
Blue
Black
10000
600
700
9000
2000
10000
1000
8000
500
740
10000
8500
900
600
800
700
500
400
600
500
Black
Black
10000
9000
8500
800
500
Black
8000
7000
9500
950
650
350n
350

Fig. 3B

Blakely, Sokoloff, Taylor & Zafman LLP (408) 947-8200
Title: System and Method for Decoding Live Audio/Video Information
1st Named Inventor: Adam Leslie Clark Docket No.: 6882P002
Express Mail No.: EV410137976US
Sheet: 5 of 9



	Pixel Number 322₁	Scaled Dominant Color Value 323₁	Scaled Luminance 326₁	Scaled Chrominance 327₁	Color Depth 328₁
331	1	R10	9	5	7
332	2	R9	6	4	5
333	3	G8	5	5	5
334	4	See Pixel 3			
335	5	G10	6	4	5
336	Last Pixel				

320₁ … 320ₙ

400

	Segment Reference Pixels	Red Value 353₁	Green Value 354₁	Blue Value 355₁	Luminance Value 356₁	Chrominance Value 357₁
361	Red	10000	2000	500	900	500
362	Green	600	10000	740	600	400
363	Blue	700	1000	10000	800	600
364	Black	9000	8000	8500	700	500

350₁ … 350ₙ

	Pixel Number 422₁	Red Value 423₁	Green Value 424₁	Blue Value 425₁	Luminance Value 426₁	Chrominance Value 427₁
431	1	10000	2000	500	810	250
432	2	9000	1800	324	540	200
433	3	600	8000	740	300	200
434	4	600	8000	740	300	200
435	5	600	10000	740	360	160
436	Last Pixel					

420₁ … 420ₙ

Fig 4

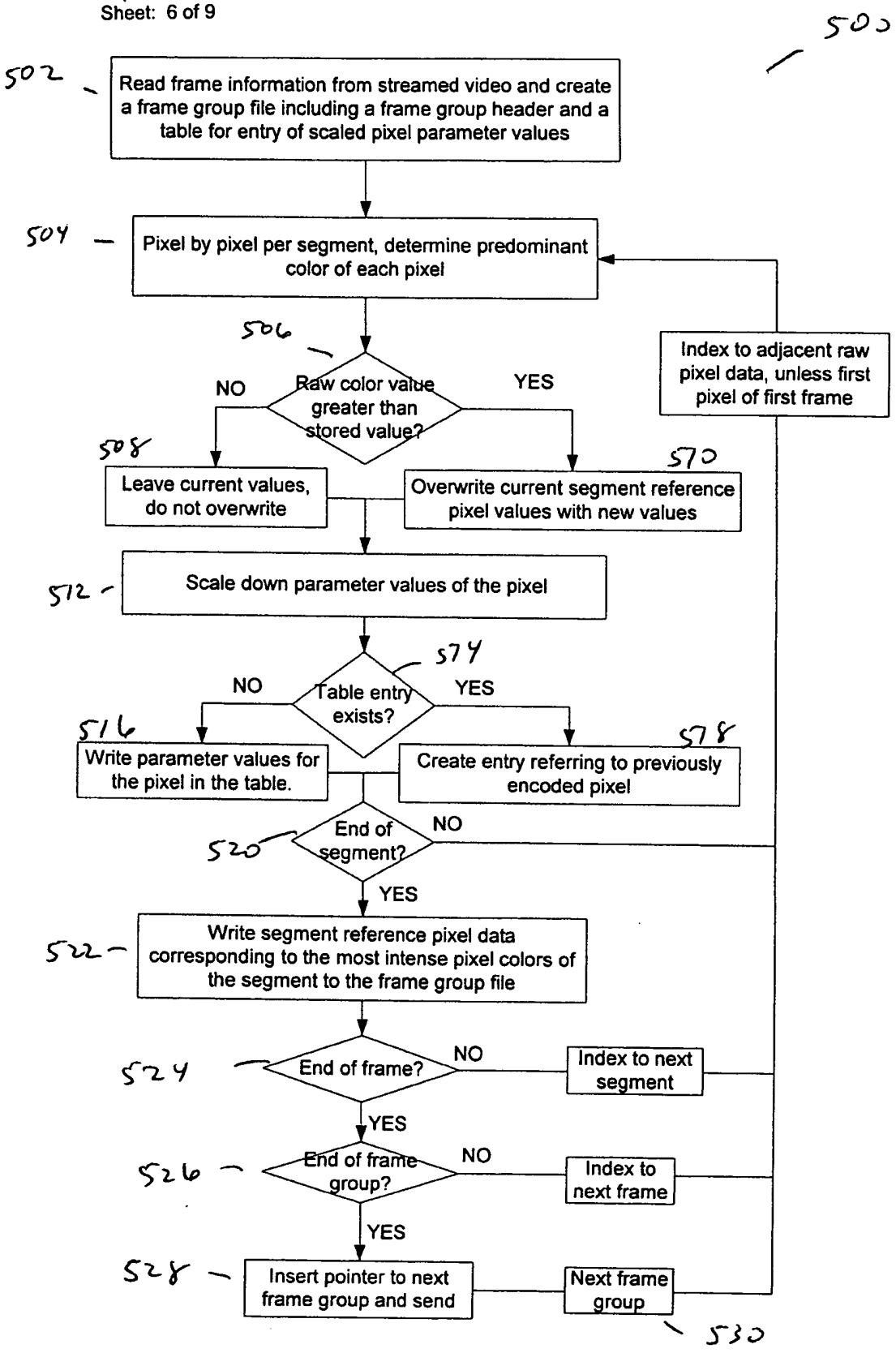

500
502
Read frame information from streamed video and create a frame group file including a frame group header and a table for entry of scaled pixel parameter values
504
Pixel by pixel per segment, determine predominant color of each pixel
506
Raw color value greater than stored value?
NO
YES
Index to adjacent raw pixel data, unless first pixel of first frame
508
Leave current values, do not overwrite
510
Overwrite current segment reference pixel values with new values
512
Scale down parameter values of the pixel
514
Table entry exists?
NO
YES
516
Write parameter values for the pixel in the table.
518
Create entry referring to previously encoded pixel
520
End of segment?
NO
YES
522
Write segment reference pixel data corresponding to the most intense pixel colors of the segment to the frame group file
524
End of frame?
NO
Index to next segment
YES
526
End of frame group?
NO
Index to next frame
YES
528
Insert pointer to next frame group and send
Next frame group
530

Fig. 5

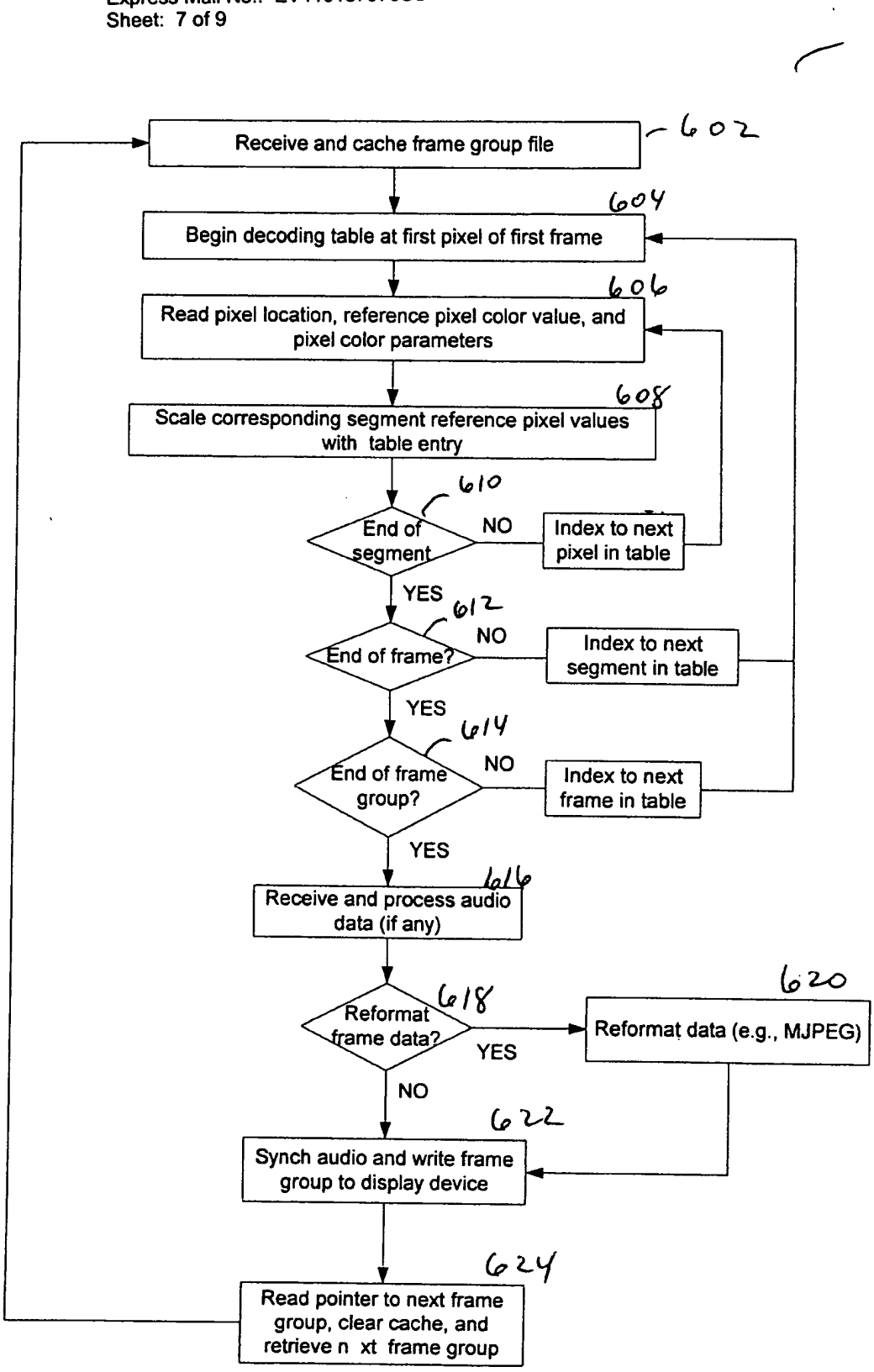

600
Receive and cache frame group file
602
Begin decoding table at first pixel of first frame
604
Read pixel location, reference pixel color value, and pixel color parameters
606
Scale corresponding segment reference pixel values with table entry
608
End of segment
610
NO
Index to next pixel in table
YES
End of frame?
612
NO
Index to next segment in table
YES
End of frame group?
614
NO
Index to next frame in table
YES
Receive and process audio data (if any)
616
Reformat frame data?
618
YES
Reformat data (e.g., MJPEG)
620
NO
Synch audio and write frame group to display device
622
Read pointer to next frame group, clear cache, and retrieve n xt frame group
624

Fig. 6

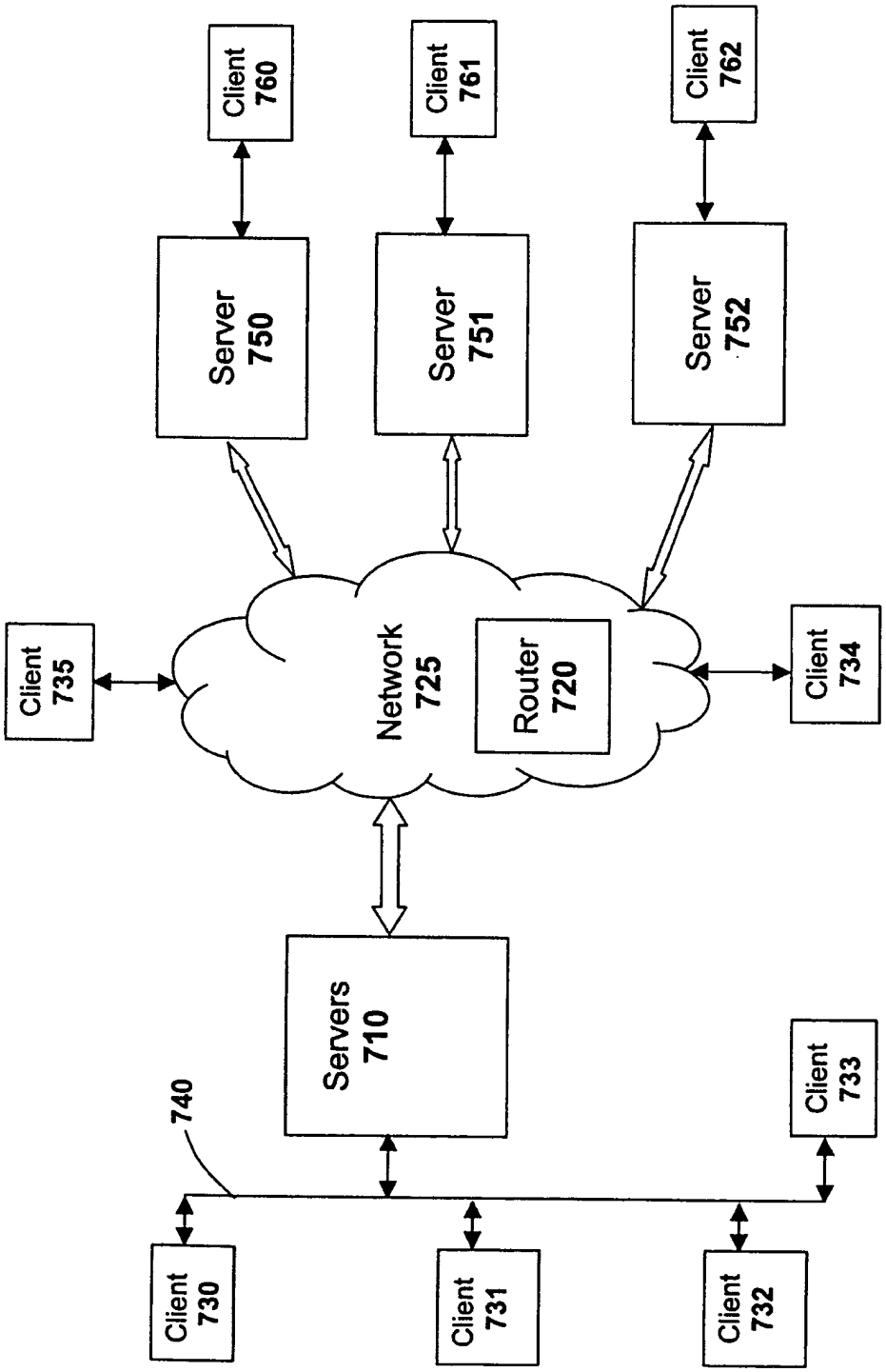

Client 760
Client 761
Client 762
Server 750
Server 751
Server 752
Client 735
Network 725
Router 720
Client 734
Servers 710
740
Client 733
Client 730
Client 731
Client 732

FIGURE 7

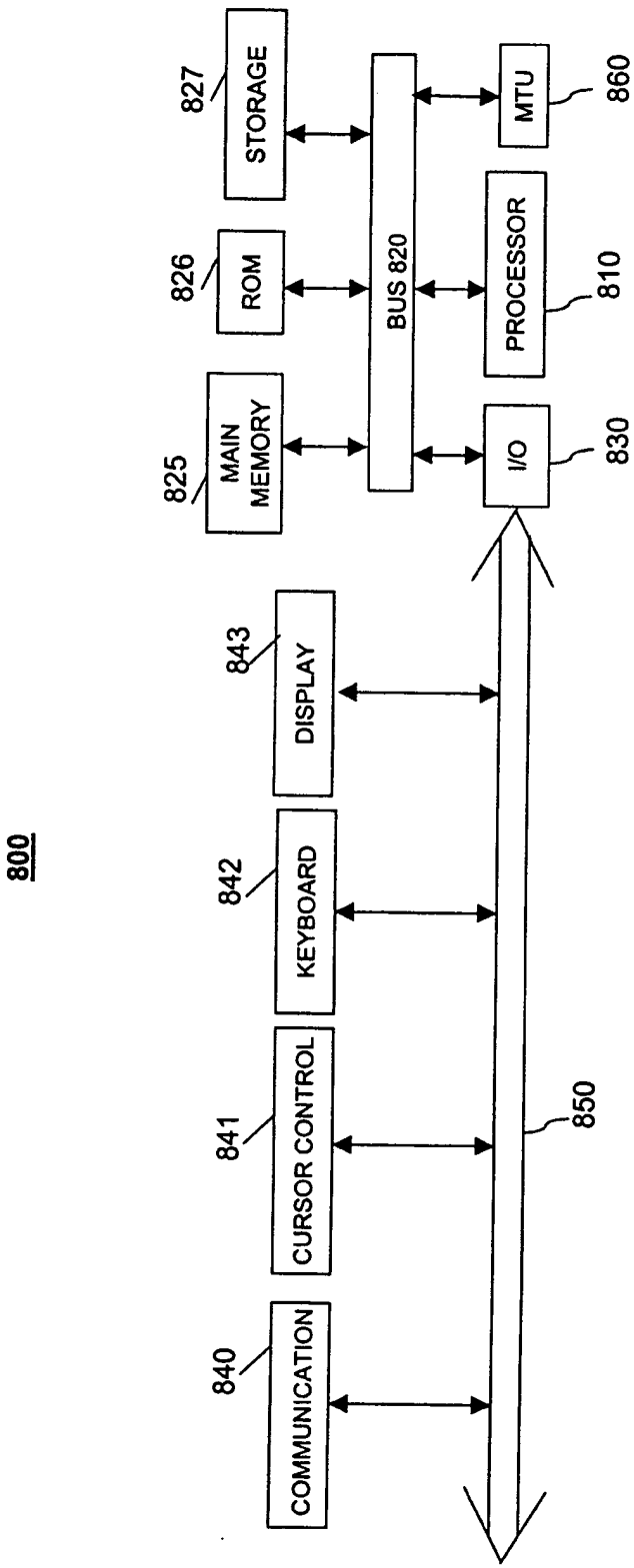

800
827
STORAGE
826
ROM
825
MAIN MEMORY
BUS 820
MTU
860
PROCESSOR
810
I/O
830
843
DISPLAY
842
KEYBOARD
841
CURSOR CONTROL
840
COMMUNICATION
850

FIGURE 8